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JAN 24 1952

AN-
AMERICAN
fisherman

Seattle!

The "Queen City" Has "History to Burn"

---Page 8

Editorial

Seldom, indeed, has there been a year in the existence of the great American tuna industry so fraught with tumult as this last one. Yet, gratifyingly enough, it has been a rare occurrence wherein an industry has enjoyed such sympathy in a nation, and such courage among its own people, as that which the tuna industry has known in its hour of peril.

Its people fought, and the average American, who admires courage to the exclusion of many other virtues, listened in sympathy. Faced with a public opinion of this nature, the Washingtonian lawmakers began to take the situation seriously. Sometime during this month, after the Congress convenes once again, the answer to the foreign importation dilemma may be answered with a just tariff.

If and when this happens, a remarkable American industrial institution will be going once again full speed ahead.

This magazine can have only the greatest admiration for a people courageous enough to put up such a stiff fight for what it thinks is right and just. Faith in their industry, in that industry's workers from union member to cannery head, has also entered strongly into the picture. To such men as Frank Perry, M. O. Medina, Joe Rogers, M. E. Simas, et al, faith in their industry has been as much a part of their lives as their known honesty, integrity and citizenship. These men continued building collectively around $4,000,000 worth of ships,, even in the teeth of the peril that threatened.

Can an industry collapse in the face of such strength?

No.

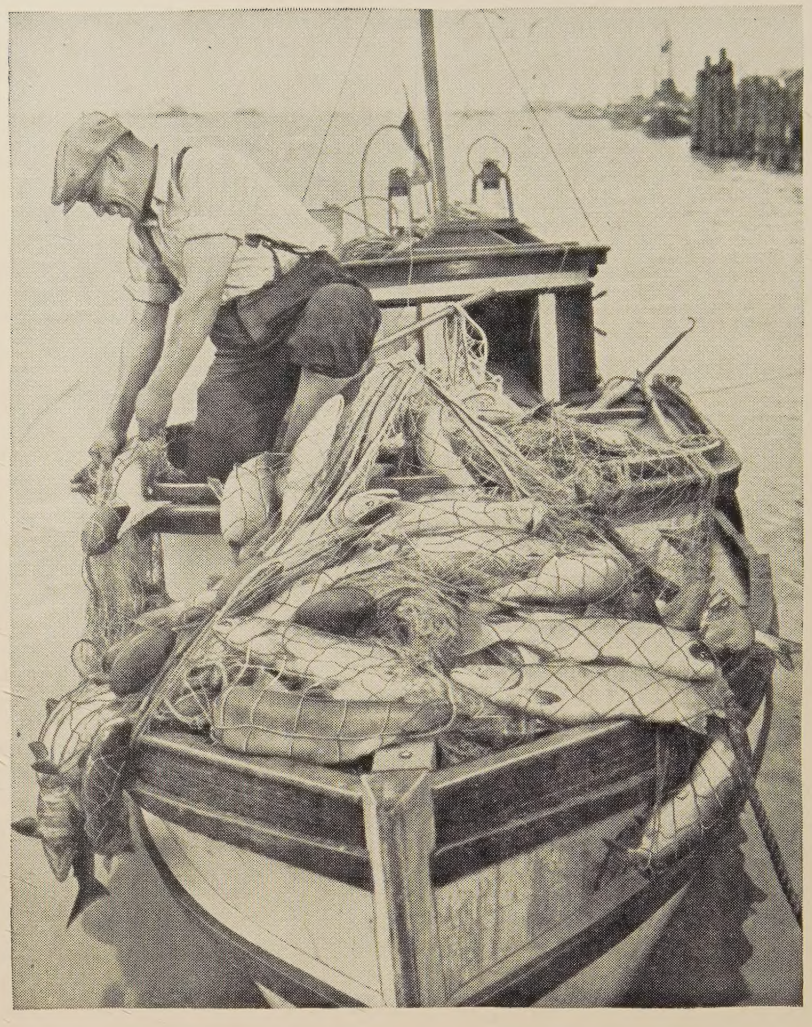
Astonishingly, in view of what has transpired, 1952 may usher in one of the industry's greatest years!

M. O. Medina

JANUARY
1952
35c

Frank Perry

Fishermen Prove it!



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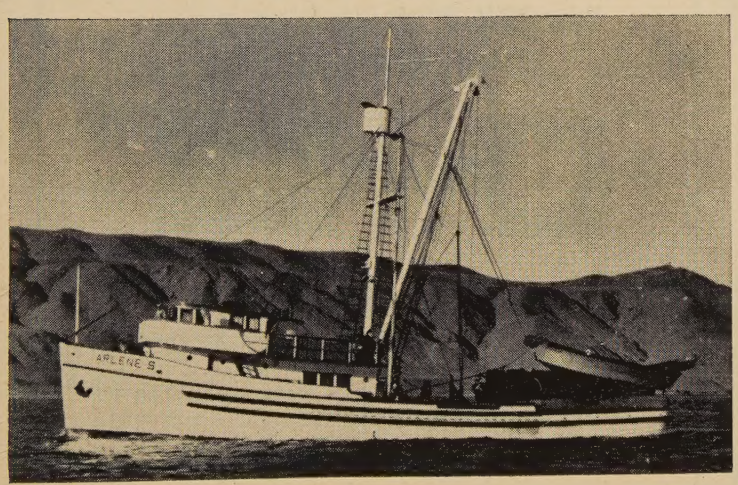
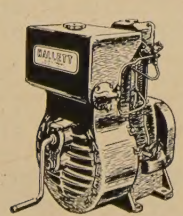
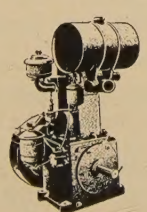


John Sestich of San Pedro, owner of the "Arlene S," depends upon his Hallett as a stand-by auxiliary. The 150-ton, 96-foot purse seiner has been one of the high boats for tonnage and number of trips out of San Pedro for several years.

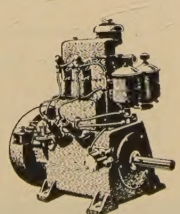
Hallett Diesel Engines are first choice among fishermen who know because of their long life, economical operation, and trouble-free service.



Standard Model AC-1, 5 H.P., Air-cooled Diesel Engine



Hallett 1-cylinder, 8 H.P., Water-cooled Diesel



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STANDARD ENGINEER'S REPORT

DATA

LUBRICANT RPM Delo Oils

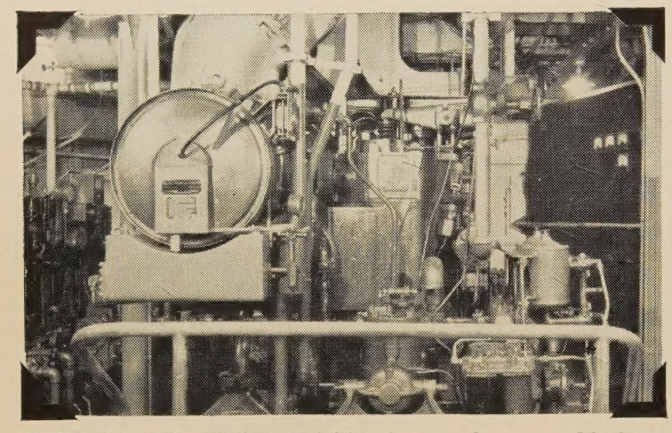
UNIT Atlas diesel engines

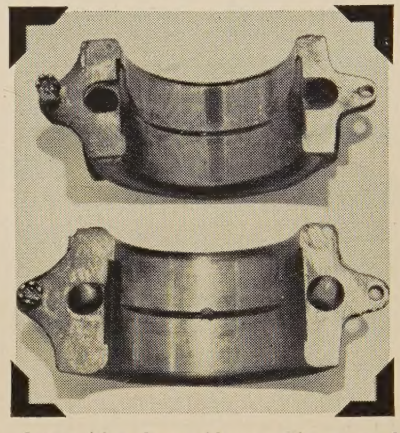
SERVICE Tuna fishing — long cruises

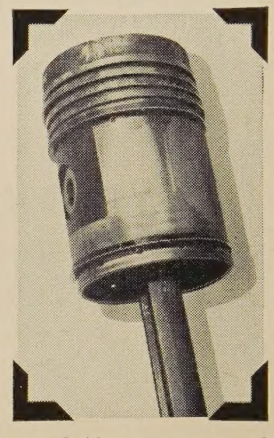
CONDITIONS Constant load operation — high temp.

FIRM. M.V. Lucy Elena, San Diego, Calif.

Engine-cleaning oil saves overhaul, ends bearing failures!





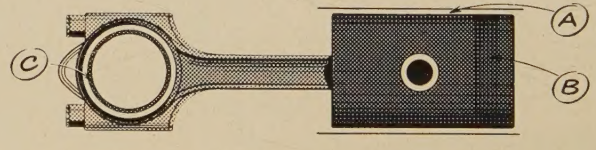


WORKING UNDER CONSTANT LOAD for as long as 90 days at a time, the Lucy Elena's diesel engines continually "gunked up", rings stuck and one of the auxiliaries wiped out a bearing. Switching to RPM DELO Heavy Duty Oil stopped all the trouble. It cleaned deposits from the engines and saved the expense of tearing them down. For over 1½ years now it has kept all moving engine parts clean and in good condition. The connecting-rod bearings and piston shown above came from one auxiliary after 8000 hours operation.

THE M. V. LUCY ELENA fishes off California and South America. Standard Diesel Fuel is used in her engines. Its controlled distillation range, correct flow and proper ignition provide full, uniform power. Standard Diesel Fuel and RPM DELO Oil get the most out of diesels.

CAPTAIN JOHN BALESTRERI of the Lucy Elena, says, "In the tuna-fishing business, engine trouble can be mighty costly both in lost time and cargo. Since using RPM DELO Heavy Duty we have had exceptionally clean engine operation and no bearing trouble as we experienced with the previous oil."

How RPM DELO Oils keep engines clean and prevent wear



A. Contain special additives that provide metal-adhesion qualities...keep oil on parts whether they are hot or cold, running or idle.

B. Anti-oxidant resists deterioration of oil and formation of lacquer...prevents ring-sticking. Detergent keeps parts clean, helps prevent scuffing.

C. Special compounds stop corrosion of any bearing metal, and oil foaming in both wet and dry sump engines.

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STANDARD OIL COMPANY OF CALIFORNIA

PAN-AMERICAN *fisherman*

NEWSmagazine of PAN-AMERICAN FISHERIES combined with the magazine TUNAfisherman

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ABOUT THIS ISSUE:

The Globe
Page 4

Ebb'n Flow
Page 5

Foreign
Page 7

Seattle
Pages 8-9

Mystery Man
Page 11

Nicaragua
Page 12

Enterprise
Page 14

Men & Machinery
Page 15

The GLOBE

An International News
File compiled by
FOREIGN BUREAUS
of
Marine Press Association

Vigo, Spain.—Spanish fish catches entered through the ports of the Vigo District during October this year dropped almost 22 percent as compared to the previous month and 35 percent as compared to October 1950, a November 8 American consular dispatch for that district points out. Rough weather and the beginning of the off season for cod fishing accounted for the reduction in the activities of the long-range fleet, and a recurrence of difficulties with the Portuguese over alleged violations of their territorial waters affected the short-range fleet.

Spanish Fishing Vessels Accused of Violating Portuguese Territorial Waters: It is reported that some 20 odd fishing vessels of this district have been confiscated by the Portuguese Coast Guard on the grounds that they violated Portuguese territorial waters. The vessels involved were taken into Portuguese ports and detained for several weeks pending court action, which normally takes a matter of weeks and without exception results in the confiscation of the vessels' fishing equipment and the payment of heavy fines. Protests by the local industry through Spanish diplomatic channels have, so far, met with little success.

Canned Fish: The improved operations enjoyed by the fish-packing industry the past few months came to an end during October, when the packers' small stocks of German and American tin plate were completely exhausted. Packing for export will not, therefore, be possible until further supplies are received.

Lisbon, Portugal.—Fish canning in Portugal for the first half of 1951 was at a considerably lower rate than in the same period of 1950, states a November 7 American Embassy dispatch from Lisbon.

Only 286,883 cases (3,991 metric tons) of fish were canned the first part of 1951, as against 508,911 cases a year earlier. The difference was more than accountable by the large production of canned anchovies in 1950 of 348,000 cases, as compared with only 91,000 cases in 1951. However, there was increased production in the first half of 1951 of sardines (which amounted to 158,145 cases, as compared to 94,718 in 1950).

Estimates of total production for the first nine months of 1951 amounted to 713,659 cases (11,922 metric tons), far short of the annual average of a little over 2 million cases.

First quarter 1951 exports of canned fish were large, but included many shipments which might have taken place in the previous quarter to comply with 1950 annual quota agreements.

As a result, exports for the first six months of 1951 were 975,098 cases (16,693 metric tons), as compared with 486,622 cases in the first six months of 1950.

Sardines alone accounted for 883,879 cases (16,363 tons) in January-September 1951, out of total exports of 1,192,431 cases (20,464 tons).

The United Kingdom was the largest consignee of sardines, the United States of anchovies, and Italy of tuna.

Matzatlan, Mexico.—A total of 125 boats are reported to have registered for participation in this season's Mazatlan shrimp fishery, a September 5 American Consular dispatch from Mazatlan reports.

The much-debated controversy of northern Nayarit and southern Sinaloa fishermen opening their shrimp weirs or traps has been settled by the Secretaria de Marina. It is believed this will permit the shrimp to go into the sea where they will develop to a larger size and reproduce. In view of this and frequent rains, a good shrimp season is anticipated.

Fishermen who can no longer fish by means of weirs will have to do deep-sea fishing instead. Boats will be rented by their owners to the northern Nayarit and southern Sinalea Cooperatives. An office of the Federacion de Cooperatives de Pescadores has been opened in Mazatlan where rental contracts may be executed. The fishermen will not, however, be entitled to sell their shrimp direct to consumers, but must sell to the owners whose boats they operate.

The new freezing plant at Mazatlan, previously reported under construction, has been completed and is ready for operation.

Mid-Atlantic Points.—Middle Atlantic Fisheries—1949, C.F.S. No. 693, was recently issued by the Service's Branch of Commercial Fisheries. This 6-page annual summary gives the 1949 catch of fish and shellfish in the coastal areas of the Middle Atlantic States (New York, New Jersey, and Delaware). The tables that make up this bulletin give data on operating units by States, catch by species by States, and the catch of certain shellfish by species by states in number and bushels.

Copies of this annual summary (C.F.S. No. 693) are available free upon request from the Division of Information, U. S. Fish and Wildlife Service, Wash. 25, D.C.

Bremerhaven, Germany.—West German fish-meal factories expect to produce this year 53,000 to 55,000 metric tons against 46,000 tons in 1950, points out the November 10 issue of The Fishing News, a British fishery periodical. In addition, at the time of this report, about 20,700 metric tons of fish meal were imported by Western Germany.

As the supply of fish meal, particularly of cod meal, has tightened considerably of late 3,000 tons of cod and fish meal stored during the summer have been released for distribution.

Mexico City.—In an attempt to find new fishing grounds, shrimp interests in Mazatlan (located on the west coast of Mexico) are organizing an expedition of four boats for deep-water shrimp fishing early in December, a November 29 American consular dispatch from Mexico City points out. The expedition will be headed by the Chief of the U. S. Fishery Mission to Mexico, who will be assisted by biologists from the Fishery Institute of the Pacific and of the Directorate Gen- and of Fisheries and Allied Industries. This step is being taken because of the scarcity of shrimp on the west coast of Mexico so far this season.

PAN-AMERICAN *fisherman*
NEWSmagazine of PAN-AMERICAN FISHERIES

Administration Changes, Elections at San Diego, California

AMERICAN TUNABOAT

Crivello:

Sam Crivello, 40, of 2333 Columbia St., was elected president of the American Tunaboat Association. He succeeds Frank M. Perry. He is a brother of Jack Crivello, executive vice president of the Westgate-Sun Harbor Co.

Elected vice president was Harold Morgan Sr., owner of the tuna clippers *Chicken of the Sea* and *Corsair*. James Shreve, customs broker, was elected secretary-treasurer. Harold Cary will continue to serve as association executive manager and Dr. W. M. Chapman as research director.

Crivello, managing owner of the clipper *Sun Europa* and associate owner of the clipper *Sun Voyager*, has been an association director since 1935. He has been engaged in the local fishing industry 23 years.

AT WESTGATE

Lane, Kaner, Buchanan:

Three Westgate-Sun Harbor Co. officials have resigned to join the California Tuna Packing Corp.

James B. Lane leaves his post as vice president of sales to become vice president and partner in his new spot. Larry M. Kaner, eastern and southern district sales manager, and Jack Buchanan, West Coast sales chief, leave Westgate-Sun Harbor for sales positions.

Lane taught school in San Diego from 1933 to 1938. He joined the Westgate Sea Products Co. after service in World War II and was promoted to vice president in 1947.

State of the Industry:

January 8 was the deadline looked forward to by the industry, as the New Year approached. A number of developments had taken place during December. Notably:

Support of a federal bill providing for a $60-a-ton tariff on fresh and frozen tuna imports was voted by the Western Regional Conference of the Council of State Governments at a recent meeting in Denver.

The council, comprising legislative and administrative representatives of the 11 western states, unanimously adopted a resolution which stressed that "the importation of tuna and tuna-like products has reached a level causing distress in the industry and in the United States market that threatens the survival of the industry on the west coast."

The resolution concluded: "Be it resolved that the council go on record in support of HR-5693 (the tariff bill), and in support of appropriate remedial action to the entire problem created by the importation of tuna and tuna-like products."

Copies of the resolution are to be sent to all senators and representatives of the 11 states. Attending the Denver meeting from San Diego, among others, were Harold Cary, General Manager American Tunaboat Association, and Hap Holliday, an executive of the California Tuna Canning Co.

Aid:

Meantime, aroused by the loss of business through imports of foreign fish, some 900 Northwest fishermen met in the Eagles Hall to hear leaders of the Pacific Coast Fish Producers' Institute outline a fight to restore the domestic industry.

Mason Case of Moss Landing, Calif., chairman of the institute, presided. The discussion largely was devoted to imports of tuna and pending legislation in Congress.

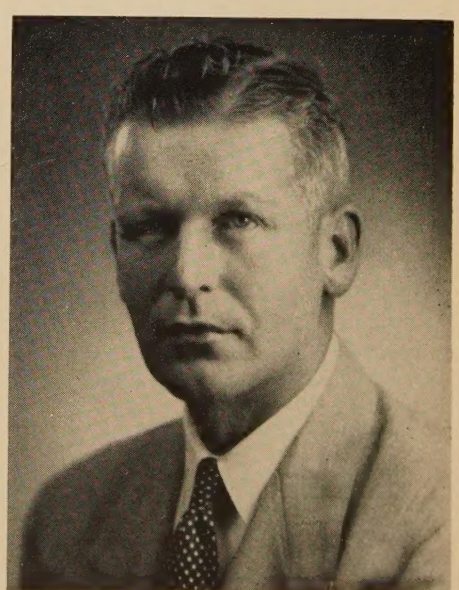
Case and other speakers explained, however, that the ultimate objective of the institute is to aid all types of fishermen plagued with import troubles and to assist them in solving other problems too.

Dr. Wilbert Chapman, San Diego, research director of the American Tunaboat Association, said the aim of the institute eventually is to have a 45 per cent tariff on all tuna imports.

Dr. Chapman said the tariff would place the domestic and foreign tuna industries on a competitive basis that would enable each to exist and still provide tuna for consumers at a reasonable price.

Most of the imports of tuna that have idled West Coast tuna fleets come from Japan and South American countries, especially Peru, institute speakers pointed out.

Harold Lokken, manager of the Seattle Fishing Vessel Owners' Association,
(*Continued on next page*)



James B. Lane
New Cal-Tuna Executive

Attending
Dr. W. M. Chapman

who returned Thursday night from Tokyo, said the production of Japanese tuna largely was set by the demand for the fish in the United States.

Dr. Chapman attributed the present plight of the domestic industry to technological advances as well as treaty tariffs that permit tuna to enter the country at a low cost.

Substitution of brine for ice in the freezing of tuna, a process developed during the second World War, has made it possible to bring frozen tuna from anywhere in the world to the United States, Dr. Chapman said.

Foreign fish constituted 8 per cent of that sold on the United States market in 1948, 13 per cent in 1949 and 29 per cent in 1950, Dr. Chapman said.

The impact of canned-in-brine tuna from Japan first was felt in Seattle but is gradually spreading, Dr. Chapman said. He said 60 per cent of all tuna sold in the Seattle area market this year is brine tuna canned in Japan.

Senator Warren G. Magnuson said a bill passed by the House of Representatives, setting a 3-cent-a-pound tariff on frozen tuna imports, will come before the Senate Finance Committee Jan. 8.

The bill provides the 3-cent tariff will be effective until 1953, when the Tariff Commission will recommend a permanent tariff after a study. Magnuson predicted the bill will be enacted into law by February.

Other speakers were Dr. Richard Van Cleve, director of the University of Washington School of Fisheries; William Wagner, Long Beach, Calif.; Fred Wolleson, Astoria, Ore.; Charles White, San Diego, and Ray Webb, all officers and leaders in organizing the institute.

FIRE

Cannery Row:

Two major units of Cannery Row were destroyed by fire with the loss estimated at $1,800,000.

Huge stores of canned tuna and sardines, fish oil and fish meal fed a raging blaze that sent columns of dark smoke thousands of feet into the air. The black pall hung over the Monterey peninsula for hours, attracting hundreds of spectators.

The flames halted a Southern Pacific express train, forcing passengers to transfer to buses, and threatened five nearby homes as well as other cannery buildings. For a time the entire waterfront was endangered.

The charred buildings were still smoldering late in the evening.

Representation:

Hints that the U. S. Department of State might reverse its policy of not objecting to a 3-cent-a-pound tariff on tuna, provided in a measure already passed by the House of Representatives, then brought a request that tuna fishermen be heard before the department takes any further action.

A glut of imports has hit the frozen and canned tuna markets and has idled four-fifths of the West Coast's tuna clipper, purse seiner and albacore fleets for several months. The Senate Finance Committee is scheduled to hold hearings in January on the House-approved bill that would levy 3 cents a pound tariff on imports of fresh or frozen tuna.

Frank M. Perry, ex-president of the American Tunaboat Association, San Diego, California, told Jack K. McFall, Assistant Secretary for Congressional Relations of the State Department that:

"Your recent letter to Senator Knowland expressing the possibility that the department might change its position with respect to HR 5693 (the tuna tariff bill) before that bill reaches a stage of public hearing before the Senate Finance Comittee has caused widespread concern along the West Coast. . . .

"We had been of the impression that the Department of State would continue with its publicly stated policy of perceiving no objection this legislation until such time as a public record of evidence on the issue is made. If, however, the department is going to make up its mind on this subject before testimony is heard on both sides, the tuna industry will be placed in a very serious disadvantage when we present testimony."

Perry concluded a lengthy letter, in which he detailed possible effects of the suggested tariff on Japan, Peru and other nations that might be affected, by asking McFall to inform the fishermen whether the department intends to make make up its mind on the tariff question before the Senate Finance Committee hearing, and whether tuna industry representatives will have an opportunity to present detailed testimony as to the injury caused so far by the flood of foreign imports.

SHRIMP PROGRAM

The Americas:

In what is believed to be the first such project founded on an international basis, the Shrimp Association of the Americas—made up of the Texas Shrimp Association and the Mexican counterpart called Camara "National de la Industria Pesquera"—has announced the launching of a program of quality control, research, advertising and promotion.

The announcement was made here by Virgil Versaggi of Brownsville, newly-elected president of the international association, who said:

"The Shrimp Association of the Americas represents what we believe to be a pioneer effort in cooperation between the industry of the United States and Mexico. We are setting out in this joint effort to expand the market for shrimp through improved product and through a national advertising and promotional campaign. For many years, the Mexican and American shrimp fishing industries have been highly competitive, since there is no tariff on our product. Rather than seek tariff protection, the two groups decided that the common sense solution to the problem might lie in a cooperative effort to increase consumption of shrimp to a point where the U. S. market would readily absorb the entire catch.

"So far as we know, this is the first time that industries of two different countries have got together to attempt a joint solution of a marketing problem."

Other officers of the Shrimp Association of the Americas are: Vice President, Pedro Pinson, Mazatlan, Sinaloa, Mexico; Secretary, Mauricio B. Madero, Mexico City; Treasurer, J. R. Clegg, Port Lavaca, Texas.

John A. Mehos, Galveston, Texas, chairman of the advertising and publicity committee, announced that the promotional phase of the program will be handled through the National Fisheries Institute and the J. Walter Thompson Company, New York, advertising and public relations agency. Other members are: Mr. Pinson, Hector Ferreira, Guaymas, Sonora, Mexico; John Nelson, Aransas Pass, Texas. Headquarters of the new association are being set up in

(*Continued on page 16*)

The Greeks Learn to Fish

Milo Moore, a Washington State biologogist, did a great job where "Burning Sappho Played and Sung."

by ROBERT K. LAWSON

WHEN Milo Moore, Washington's former state director of fisheries, arrived in Greece some three years ago, he carried with him some three and one-half million dollars of U. S. currency, and a firm determination to rehabilitate the country's fishing industry with a view to establishing this old world industry on a basis whereby Communist encroachment would find less appeal.

The ravages of nine year's guerrilla warfare had broken the back of more than 30,000 Greek fishermen, destroyed their boats and depleted their gear. The markets were devoid of fish in a land where this food was a principal ingredient of diet. The adjacent waters were alive with tuna, swordfish, mackerel, sardines, anchovies, mullet and lobsters.

Yet with all this plenty, the population was hungry and the fishermen were hungrier. Fishing methods had stood still for generations, and equipment and practice belonged somewhere back in the middle ages. Most of the boats that pretended to operate were sail-driven, and the fishermen viewed the inception of diesel engines with skeptical consideration.

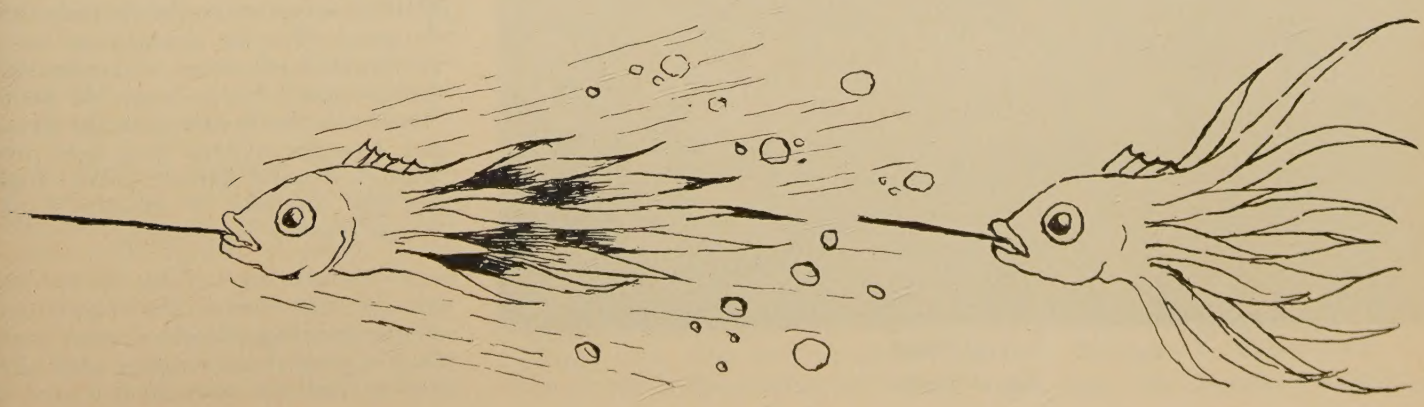
The comparatively slow speed of sail had been a determining factor in the construction of their boats—with, probably, the most notable factor being the situation of the pilot house astern. Relocation of pilot houses to the bow for both better visibility and maneuverability was an extremely difficult point to prove to the Greeks, who had, for many years, been accustomed to standing in the stern and steering their decrepit vessels with the sweep.

CHARACTERISTIC of many foreign countries, and not unknown in the United States as far as the farmers were concerned not too long ago, it was the general concensus that the fishermen needed no help. This predominating thought carried a universal thinking throughout the country, and prevails generally where any raw product is concerned.

So deeply schooled in the idea that no outside help, or for that matter, help from their own government, was considered became another stumbling block in the minds of the fishermen who were reluctant to accept wholeheartedly any aid. This, coupled with the fact that fishing ideas and methods were still fifteenth century style, made the Greeks regard any new innovation into the industry skeptically.

Another factor that had to be overcome was that in almost every instance where aid was attempted, it seemed there was a Greek law obstructing aid to the industry. Changing, altering, or circumventing these laws became a major problem also. Obtaining loans was very difficult because of the eternally long time necessary to process the necessary papers and complete investigations.

(*Continued on page 17*)



SEATTLE!

The "Queen City" Has History To Burn"

by JOHN SPRINGER

CAPTAIN Warren Gove, a San Franciscan, liked Seattle and he was no boob when it came to spotting a good business opportunity. He owned, and was the master of, a cargo ship, the *Sarah Warren*, aboard which he had visited Seattle on many occasions. One day he bought a dinky little steamship, called the *Fairy*, hoisted it on the deck of the *Sarah Warren*, and set sail for the northern port.

Despite the fact that the *Fairy* was a side-wheeler, small, and equipped with cabins that resembled dollhouses, the day it was waterborne proved a great event for the settlers of the area. The doughty Captain, so far as he was concerned, was mighty proud, too.

The little settlement of Olympia, Washington, the State Capitol today, had by this time acquired the dignity of a newspaper in which the industrious Gove immediately placed an advertisement. The plug, for *that* day, must have been electrifying to all readers. Leading off with the breath-taking announcement, "REGULAR PACKET!!' it went on to state that the:

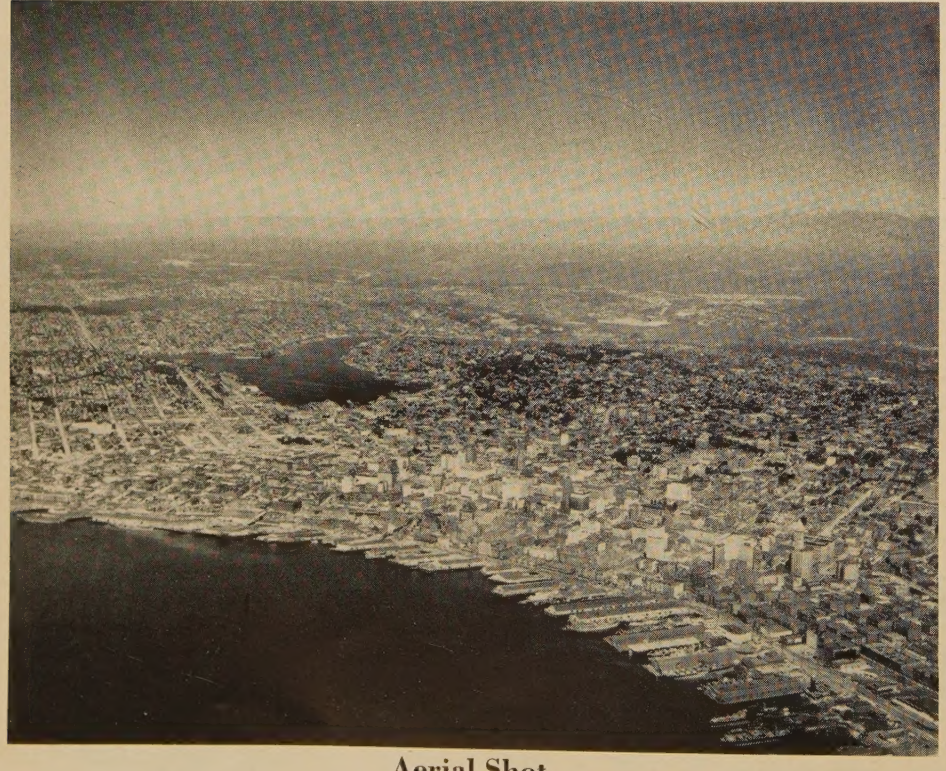
"Splendid steamer *Fairy*, Captain W. Gove, will ply regular between Olympia, Steilacoom, Alki and Seattle." According to the schedule, "It would leave Olympia every Monday and Wednesday at 10 o'clock a. m., and, returning, would leave Steilacoom on every Tuesday and Thursday at 9 o'clock a. m." In addition, "The *Fairy* would also complete one trip each week to Seattle and Alki, leaving Olympia on each Friday morning at 9 o'clock. The fare to Steilacoom was Five Dollars: and to Alki and Seattle Ten Dollars," the ad ended.

Like all good things, however, the *Fairy* came to grips with an insurmountable *impasse*. A boiler explosion did her in one morning in 1857. The mishap caused no real damage to the area's individual concourse. By that time a more substantial vessel, the *Major Tomkins*, a veteran of the Mexican War, and of runs out of New Orleans and the Sacramento River, was making the same runs.

Neither did the accident that befell the *Fairy* dampen the commercial ardor of Captain Gove. While he apparently never again entertained thoughts of providing the territory with steamship service, he continued to haul cargo in and out of Seattle with the dependable *Sarah Warren*.

THE time had come. Seattle had graduated into the prominence of a world-wide trade center, a characteristic that continued for the next 100 years. Ships from the Pacific isles, the Orient and Australia pointed their bows into Seattle's crowded harbor. Coastal trade and the products of far-away lands rocked into the community.

And when they left they hauled cargoes of fine lumber for shipbuilding and the building of docks in other ports. Seattle used these supplies also. Her harbor facilities were limited, and as



Aerial Shot
Port of Seattle

the foreign trade grew by leaps and bounds, loading facilities became a premium.

Tramp ships and the great wind-jammers stood in the roadway outside for chances to unload and take aboard merchandise. And while the ships waited the crews came ashore and got acquainted. This led money into the coffers of the merchants, and quick to take advantage of this opportunity, grog shops sprang up like mushrooms along the waterfront area.

It led to such noted spots as *"Our House,"* and the equally famous *"Bill the Mug's,"* bars patterned in those days to welcome the hardy hearts of sailors whose thirst had not been completely slaked in long days, sometimes months, of buffeting the rough sealanes of the Pacific.

It was for the Pacific Steamship Company, however, to institute regular scheduled service with other already established West Coast ports. This came early in 1877. The line expanded to operate more than seventeen vessels in the regular service.

Prior to this, the *Eliza* had plied between Seattle and San Francisco ports during 1858 and for some time thereafter. In addition to passengers and cargo the *Eliza* carried most of the mail from the east to the western pioneers. It was good service, for those days, and much of the mail was not more than three month's aged upon arrival.

The discovery of gold on the Frazer River in northern British Columbia is the incident that put Seattle's shipping upon the firm sound basis it has subsequently enjoyed. This, more than the vast shipments of lumber, did more to put Seattle on the map as a world trade center for expansion. The influx of gold-seekers, and the equivalent necessary supplies to maintain operations put a shot in the arm into the shore trade and boomed business in all areas of the vicinity.

IT also produced stiff competition in the shipping business. Just prior to the stimulating gold trade, the Wright brothers had the shipping business pretty much by the tail between Seattle and the Puget Sound area. They operated the *Olympic*, reputedly built in New York at a cost approaching $200,000, on a regular passenger service there.

In Portland, however, the Stars, E. A. and L. M., a couple of enterprising business men who had amassed some considerable amount of money in the sale of rye whiskey, put wise eyes upon the lush steamship trade in that area. San Francisco shipyards produced for the Stars a steamship called the *North Pacific*, a side-wheeler costing them some $100,000. And they slapped this vessel on the run in competition with the Wright's *Olympia*.

The Wright's promptly resented this intrusion into their profitable business, and retaliated with a prompt price-cut in fares. The Stars responded as might be expected, and a price-war developed that has never been equalled in the shipping business. So great became the vehemence of the competitors to hold their trade that fares dropped more than 300 percent from the original $16.

Passengers laughed their heads off at this crazy business, and rode both steamers without partiality, simply for the trip and a chance to be amused further. Until finally both lines were gratitously proffering free transportation, and subsequently free food aboard the vessels. Later, their great hearts prompted them to give away free pictures of the vessels also.

By this time, apparently, the owners had nothing more they could conscientiously award the happy passengers, except perhaps the vessels themselves, and a sort of truce was called. The results of this monumental amelioration of affections developed into an idea that was to prove a strategic and lasting solution.

THEY agreed, at a meeting, that a race would be run and the winner would, of course take all, that is, as far as the future business was concerned. Rates would be restored to normal, and the winner could then proceed to recoup the tremendous losses both had incurred, as their affections ebbed more and more freely to the point of extinction. The race, it was decided was to encompass a stretch of water between Victoria and Port Townsend.

The great day arrived. Both ships were loaded to the gunwales with joyous passengers, who, with the probable exception of the gamblers, didn't care particularly who won. The steamers took off with few standing ashore, and it was a neck and neck heat most of the way across.

Within the last three minutes of the race, the *North Pacific* plunged ahead to nose out the Wright's *Olympia* by a close, but generally agreed margin and the field was left to the winning Stars. The Stars later bought out the Wrights, who proceeded to withdraw immediately from the shipping business. There was much speculation, but it has been said that the *Olympia's* tiny whistle, blown to stimulate the groaning ship and her bustling crew to greater effort, disbursed so much vital steam that she lost the race.

Seattle's citizens were still somewhat unhappy over what they considered a slow growth in the shipping and export trade. This condition was not improved with the advent of the transcontinental railroad line of Northern Pacific going into Tacoma about this time. This, presumably, was a miscalculation upon the road's part as it developed later.

Col. Warren D. Lamport
Managing Director, Port of Seattle

The people of Seattle had no intention of sitting idly by, however, and as a result the Puget Sound Shore Railroad was petitioned to link the two cities with their facilities. This they did around 1884 while Seattle's population stood at around 20,000 heads. The results of this transaction can be judged

George T. Treadwell
Gen. Mgr., Chief Engineer, Port of Seattle

by the growth in population here, which abruptly soared to 55,000 in the short span of three or four years.

The linking of the city with the main-line transcontinental railroad put Seattle on the map. Meanwhile she had been striving to maintain her good connections as the "gateway to Alaska." The Puget Sound & Alaska Steamship Company had innumerable cargo and passenger steamers on this run, and one of their outstanding ships, the *Ancon*, hit the jackpot with the first load of gold from Alaska in 1886. This seemingly established Seattle as the port as far as Alaska was concerned.

Following the advent of the railroads closely, Washington had become a state. The Northern Pacific, however, was still in their hair. The railroad had put into service the steamship *Phra Nang* between Tacoma and the Orient, a situation that was not viewed with much enthusiasm by the Seattleites.

Along about this time the Northern Pacific completed the road started earlier into Seattle. This had little, if any, effect upon the trade at the port of Seattle, however, and it was not until the Nippon Yusen Kaisha steamship lines were established between Seattle and Japan in 1886 in cooperation with the Great Northern Railroad, that the people of Seattle felt justice.

The first ship from Japan was the *Miike Maru*. This was promptly followed by others, who recognized the virtues of fewer nautical miles in traveling the Great Circle Route, instead of other ports such as San Francisco, with the result that Seattle was immediately established as the "Gateway to the Orient," a title she has not been forced to relinquish since that time.

The expansion of shipping at Seattle had grown by leaps and bounds by this time. In fact, it was out of all proportion to docking facilities. Docks had sprung up here and there without much regard for permanency, nor regard for convenience and efficiency. With statehood, however, Seattle was to come into a heritage that would abolish such a disarray of facilities.

LEGISLATURE moved promptly into action for the platting, filing and sale of tidelands to the city. Seattle then, in turn, could lease these lands to private enterprise. Private capital went to work to develop the area then, under leases of thirty years' extent, and as a result much of the Seattle harbor docking area facilities moved forward rapidly under the impetus of industrial and shipping firms seeking location there.

The historic days of the Alaskan gold rush brought additional facilities until virtually all space within the harbor area was utilized. It contained additional docking facilities, piers and offices adjacent for nearly every steamship line operating on the West Coast. With the mad rush of men and supplies into the Yukon, Seattle rapidly outgrew San Francisco as a shipping port to this section of the country, thus clinching her claim as the "Gateway to Alaska."

Seattle got her final jump into prominance as a huge West Coast shipping port, by inaugurating a vast expansion program to develop her docking and shipping facilities simultaneously with the beginning of construction on the Panama Canal. New piers with warehouses and cold storage facilities jumped from nowhere with remarkable quickness. All activity kept pace with the building of the canal, and when that project was completed Seattle was ready.

Well aware of her strategic location as far as Alaskan trade and business with the Orient were concerned, Seattle stood ready to cash in. A maneuver that has subsequently justified all expenditures and effort in its consumation. Trade, however, outstripped even the vision of these far-sighted men, and later development was done in the Smith Cove Terminal area, where the Great Northern Railroad built the first terminal for sea-going vessels.

With the popular increase in world trade ever expanding, Seattle still finds herself locked in a vice for facilities to accommodate additional shipping that comes to her door annually in greater numbers.

UNDER present consideration is a 3000-foot pier paralleling Seattle's shoreline. This will have a 190-foot wide loading area and storage sheds, with railroad facilities into the project. Also under consideration is the development of facilities to accommodate an area for the docking of the thousands of fishing craft which put into Seattle annually.

Railroads, however, have not played the only important part in the growth of the Port of Seattle, although they contributed immeasurably to its early expansion and growth. The airplane has played a not inconsiderable role, and with the inception of the airplane, Seattle set out to provide accommodations for this service, which resulted in the completion of the Seattle-Tacoma International Airport.

Four major transoceanic, transcontinental and Alaskan airlines utilize these facilities. The central administration building includes many Federal installations such as Civil Aeronautics Authority, Customs, Department of Agriculture, Post Office, Public Health and Weather Bureau. While still under the administration of the Port of Seattle authority, the airport is located some miles from the city. Commercial carriers operate to provide transportation between the city and the airport.

Important to Seattle's shipping picture is the vast trade she enjoys with Japan. And to the end of enjoining in the promotion of additional good-will in this project, the men of Seattle are joining in staging the huge International Japanese Trade Fair there from June 17th through July 3rd this year. Statewide interests are cooperating in the Fair activities and plans.

BUT Seattle has many more things than a port to the sea and an airport, although these other things seem strangely to revolve around the port as a hub. The workers of the city of Seattle spend their lunch hours at the waterfront cafes, drawn there perhaps by the mystic thrill of ships from far-away lands, and hustle and bustle of activity. It is these restaurants that make Seattle famous for other things.

For seafoods; and as the site of the annual contest for the Free-Style Clam Eating Champion of the World. Ivar Haglund's restaurant "Acres of Clams" is famous throughout the seven seas for this contest, as is Haglund, himself, as the *mayor* of Seattle's waterfront. In

(*Continued on page 18*)

Los Angeles Mystery Man

by Walter "Hank" Richards

DURING mid-December a mystery man slipped quietly about Los Angeles markets making random purchases of canned tuna, domestic and foreign.

Selecting two cans of each known brand and type, he took them to the ballroom atop Long Beach's Lafayette hotel, carefully removed the labels and stamped a secret code number on each can. With 300 cans of tuna, he proceeded to open each pair, placing the contents of one on a plate; the other was covered with a transparent top.

The mystery man turned out to be a field representative gathering samples for Dr. J. Russell Esty, dean of research chemists of the National Canners Association. They were setting the stage for the tuna industry's first self appraisal, a cutting bee or sampling of the year's tuna pack held December 14, 1951. Each of California's 28 tuna canners was ready to subject his product to the acid test of comparative study, all in the interest of improvements that will benefit the tuna buying housewife.

JUDGING teams made up of executives and research expert from the canneries represented, spent all morning going down the long tables impartially judging tuna in much the manner of cigarette blindfold tests. They graded according to quality and workmanship, making special notes regarding taste, smell, appearance and amount of salad oil fill in each can, leaving their signed grading sheets beside each sampling they had judged.

At the end of the sampling Dr. Esty presented each canner with the code numbers of his own products so they could make a confidential study of how they had rated.

Some canners were amused and others chagrined to discover that they had rated competitor's brands higher than their own. Several canners, previously skeptical of the benefits of the cuttings, were so impressed with the results they called their superintendents to bring packing table foreladies over for a study of rival brands so they might bring their own products up to standard.

The tabulated return of the judging were read by Andrew Sanfilipo, Nick Trutanich and Walter H. Gillis at a luncheon immediately after the cuttings attended by 150 members of the canning fraternity.

Dr. J. Russell Esty, research chemist, moved quietly, but the results he got received plenty of publicity.

The official tabulations indicated a wide range between well packed tuna and that indifferently processed. In some types the spread extended from 100 to 38 in the grading for an average of 74, indicating that there is plenty of room for improvement in standardizing the product.

Canners attending the luncheon were so impressed by the benefits they voted unanimously to make the cuttings an annual affair. There is talk also of extending the tests to include mackerel and sardines.

Mr. G. H. Clark, biologist, director of research for the tuna standards committee was jubilant over the results. "This will bring about greater standardization of tuna products," he predicted. "Now the housewife will be assured that the quality of the tuna she buys will not vary so much."

Results indicate that California packed tuna is vastly superior to foreign packed brands. A statement issued by a committee of distinguished scientists including Dr. Sven Lassen, Mr. R. D. Pedersen and Mr. Clark stated: "Our California tuna has proved its superiority and through comparative studies such as this we are on the road to even greater developments of benefit to the American housewife."

Mr. Monte Phister, president of the California Fish Canners Association, said, in complimenting Mr. R. H. Beaton, chairman of the cuttings, "This has been the first major cooperative step in the direction of industry-wide cooperation that will soon solve the problems just now besetting our industry. We have one of America's most nutritious foods, it is lower in price than compar-

(*Continued on page 18*)

Nicaraguan Fish Story

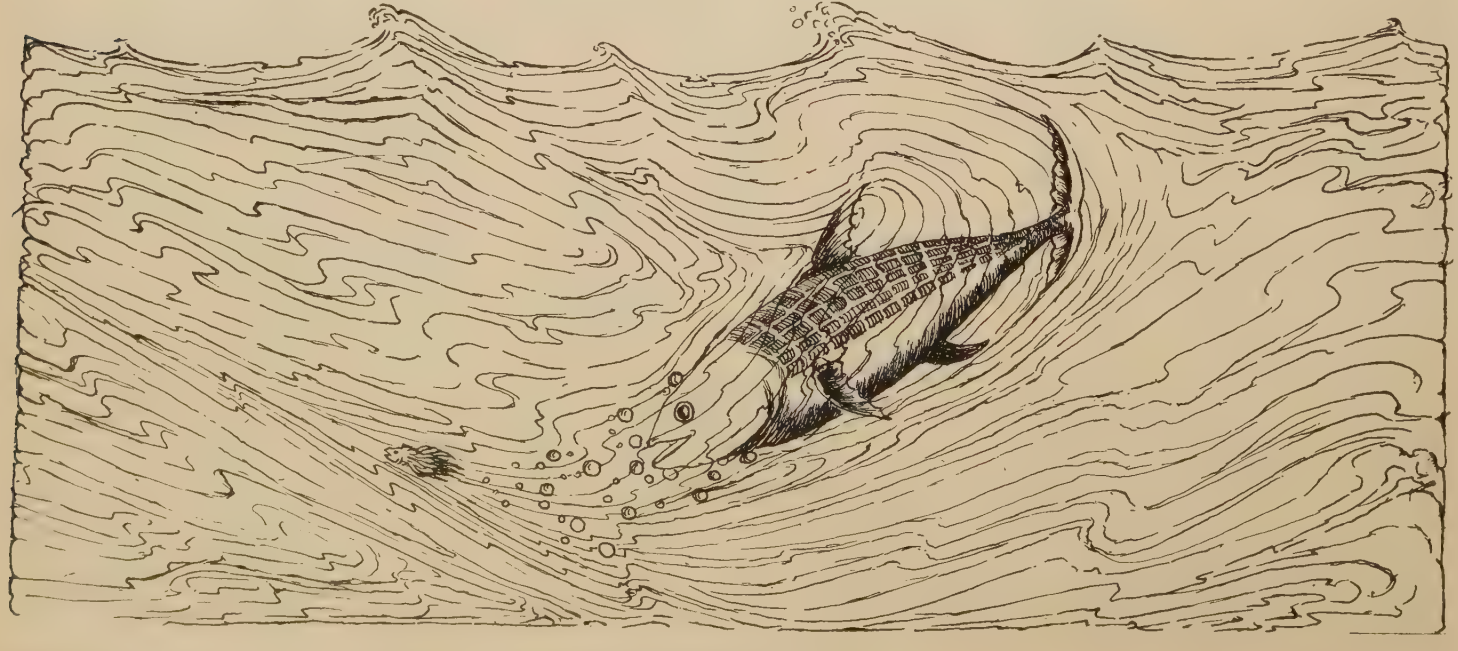
NOWHERE on earth, I think, will the angler find better sport than in Nicaragua," the yachtsman William E. Simmons declared when he returned from an expedition there in the 1890's. Indeed, for fishing enthusiasts there are few places more interesting than this region of large lakes, legendary rivers, and mysterious lagoons.

The history of Nicaragua's waters—which was the country's history for four centuries—tells of "a little fish the size of a pin" and of the "colossal swordfish that coast a team of oxen much effort to pull." Caciques, conquistadors, pirates, friars, and merchants spoke boastfully of some "strange fish" they were the first to catch, or of "an alligator with a head seven feet long," or "the shark that swallowed a cow, horns and all," or "a *sabalo* that sank the boat with a blow of its tail."

For this extremely interesting story of fishing in Nicaragua this magazine is indebted to "Americas," magazine of Pan-American Union.

In a stormy river, good fishing, as the Spanish proverb has it, and in Nicaragua's San Juan River the Vanderbilts and Morgans caught a good part of their fortunes. With their shipping service there in the time of the California gold rush, they transported more than two thousand passengers a month from the U. S. Atlantic Coast, across Nicaragua, to the U. S. Pacific Coast. Among the advantages the Nicaraguan passage offered over the Panama route in those days before refrigeration were menus listing turtle or crab soup, shrimp cocktail, and fillets of such excellent and varied species as rockfish, pigfish, kingfish, barracuda, redfish, *porgo*, *papagayo*, and *garupa*, all salt-water fish; or the jewfish, sheepshead, little bass, blackfish, drum, sleepy head, and mackerel, of the large rivers; and the *sabalo*, *sabaleta*, catfish, eels, and *guabinas* of the big lakes.

How can one explain the origin of these fish, their distribution in different river basins, and the effects of waterfalls and rapids on the fauna of Nicaragua's lakes and streams? In the U. S. Smithsonian Institution there are a



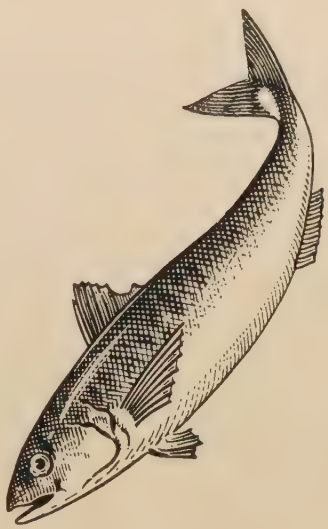
number of specimens of Nicaraguan fish pickled in alcohol, but ecologists like Eigenmann declare that the student of these materials is in the same situation as an ornithologist asked to classify a collection of plucked birds. When they die, fish lose their brilliant tones. Some, like the *mojarra*, are seen in varying shades, and are apt to change color in mimicry or during the breeding season. It is known that ocean fish can imitate any background. All this complicates the explanation of the miracle of Nicaragua's fisheries.

IN some unknown era, the big Lake Nicaragua and Lake Managua, which are connected by the Tipitapa River, were part of the Pacific Ocean. What had been an arm of the sea was cut off by the lava erupted from the volcanoes, leaving unique species of fish trapped within. The water, which has riven to a present level of 108 feet above sea level, sought an outlet through the slopes on the Atlantic side, creating a river, the San Juan, which has been suggested as the starting point for an inter-ocean canal route.

The waters of other streams coming down from the mountain ranges gradually sweetened the newly formed lake, until it became what is called *Cocibolca* in the *mangue* dialect, or "Fresh-water Sea." Lake Nicaragua became one of the largest in the world and the second largest in Latin America, forming an ellipse one hundred miles long with a maximum width of forty-three miles, covering an area of 3,089 square miles, dotted with more than a thousand islands, if we include the lava reefs of the "islets" near Granada. Alongside some of the volcanic islands, whose peaks afford a view of both oceans, the lake reaches a depth of two hundred feet or more. Out there behind the peaks the wind may blow from any direction. The water, generally driven from the northeast, can mount into such furious waves in a matter of ten minutes that a French engineer working for Nicaragua on canal plans, Felix Belly, said of it that "few seas can compare with it in violence and treachery."

Along the western shore of the lake the undertow is very strong, tornadoes are frequent, and it is very rarely calm. The quality of calm appears to be confined exclusively to the barren, hot, and sandy shores. During the day the brilliance of a sunlight that seems to fall in grains of sand almost blinds you, while at night those beaches glow with thousands and thousands of twinkling little lights, like a bird's-eye view of a great metropolis—the metropolis of the crocodiles who sleep with their eyes open!

In contrast to Lake Nicaragua, Lake Managua is only one third as large, its shores are rocky, and the water reddish. E. G. Squier, Charge d'Affaires of the United States to the Republics of Central America in 1849, wrote of this scene at Lake Managua: "Two men, up to their arm-pits in the water, were throwing a cast-net near the rocks, while a third trailed after him what appeared to be a long branch of the palm tree, but which was a cord, whereon the fishes were strung. He towed it ashore, at our request, and showed us some hundreds of beautiful fish, most of them of a species resembling our rock-bass, and about the size of a small shad. I asked the price—ten for a *medio*, or sixpence! We declined purchasing, whereupon he offered ten for a *cuartillo*, equal to three cents. I then told him we did not wish to buy, but that there was a *real* to drink to the health of los americanos."



ELSEWHERE in the same book, (*Nicaragua: Its People, Scenery, Monuments, and the Proposed Interoceanic Canal*), Squier tells how, at Managua, "at one point bushes were planted in the lake, like fish weirs, between which women were stationed with little scoop-nets, wherewith they ladled out myriads of little silvery fishes, from the size of a large needle to that of a shrimp, which they threw into kettle-shaped holes, scooped in the sand, where in the evening light, leaping up in their dying throes, they looked like a simmering mass of molten silver. These little fishes are called *sardinas* by the natives, and are cooked in omelets, constituting a very excellent dish, and one which I never failed to order whenever I visited Managua."

These "sardines" (*Melanis sardinia*) are abundant not only in Lake Managua but also in the northern part of Lake Nicaragua and in certain smaller lakes. They spawn in the month of March, laying their eggs in shady, shallow places. From time immemorial, at this season they have gone into the thickets placed by the Indians to catch them, as Squier related.

THE Tipitapa River suns south out of Lake Managua, emptying into Lake Nicaragua after a course of nineteen miles. On its western side its stretches out into a vast marsh composed of two principal estuaries named *Tisma* and *Jenicero*. In this part the water is only three or four feet deep, with a similar depth of mud below, inhabited by many alligators. Along the river lie fertile pastures. But the cattlemen there worry lest the alligators grab the cows by the nose when they confidently go to take water. The Tipitapa fish, which are for sale in the little village of the same name, are in great demand, and the Nicaraguan Tourist Bureau highly recommends them to visitors.

Not far from Granada, at the foot of a hill called Mombacho, there is another lagoon separated from the southern part of Lake Nicaragua by a short plain. This lagoon is very similar to the Tisma estuary. Oviedo, the first chronicler of the New World, related that when the water in it is high in the rainy season, "it is full of innumerable fish and large alligators, or we might better say crocodiles; and when the rains stop and the dry time comes, this beach drain dries up, and the road becomes firm, and I passed that way on dry land. And when it is dry like this the Indians kill many alligators and fish with sticks; but some water always remains in parts of it, and innumerable puddles. The time that I saw it was at the end of July in the year 1939, and it held little water. A man named Aviles who was there had many pigs of his and Diego de Moran's, with which they provided meat for the city of Granada; and as they at an infinite number of fish from that pool, they became fat, and because they had a taste and even smell of fish, they were abhorrent, and for this reason he kept them away from the water and let them go into it only to drink."

Today, in hunting alligators, the Nicaraguan Indian does not wait for the conditions described by Oviedo. He often does battle with them, face to face, in the beasts' own element, armed with a little stick of wood, about seven inches lonch, well sharpened at both ends. The hunter goes into the water. He closes in on the alligator and waits until it comes at him with its jaws open, shoves the stick upright into its mouth to lock its jaws open, and stabs it in the stomach to let it drown in its own blood.

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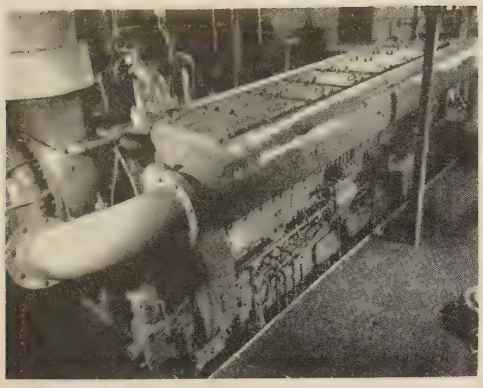

Above is shown a section of the engine room of the new Columbia with the powerful 600-h.p. Cooper-Bessemer diesel in the foreground.

Frank Perry's COLUMBIA

It's a New Beauty for the Tuna Fleet and Another Expression of Faith in a Great Industry

AMONG the many new clippers which have taken their places in the Pacific's rapidly expanding Tuna Fleet, one of the finest and most interesting is the new boat Columbia.

The reason for the extensive interest in the new Columbia is that the clipper represents the ideas of its several owners as to what makes the "perfect" tuna clipper. These men, all recognized leaders in the vanguard of progress and advancement of tuna fishing, have insisted on incorporating in the new Columbia all those features they feel will make the all-around "ideal" fishing vessel.

Heading the group of men owning the new Columbia is Capt. Frank Perry, 1951 Tunaboat Association's president; fisherman of many years experience, skipper, fleet owner, and executive director of many important industries serving the Tuna Fleet.

Among the other owners is Capt. Frank Valin, well known skipper who commands the new Columbia, and Capt. Eddie X. Madruga, one of the most experienced and best known of tuna skippers. Art Sousa is her chief engineer.

The Columbia was designed by James Petrich, and built under his direction at the Puget Sound Boat Building Co., at Tacoma. The Columbia has a length of 107', and is expected to pack more than 210 tons. Even with her exceptional beam and heavy capacity, the Columbia on her trial runs has shown a speed superior to the average boat of this length and capacity.

Driving the Columbia at its unusual speed is a 600-hp Cooper-Bessemer diesel. A pair of General Motors auxiliary diesels are used to drive 100-kw Fairbanks-Morse generators. Wixkulers, specialized heat exchangers, cool the main engine lubricating oil and jacket water.

Fairbanks-Morse motors and pumps are used throughout the Columbia's refrigeration system. The tremendous power of the Cooper-Bessemer diesel is delivered to an Olympic wheel by a 5" Monel shaft turning in Goodrich cutless rubber stern bearings. Special bottom protection is provided by copper paint, manufactured by the American Marine Paint Co.

The Columbia also carries the finest of electronic equipment, including a 1,000 fathom Raytheon Fathometer. Automatic steering is provided by a Photo-Electric Pilot, along with an Intervox direction finder, and an Intervox radiophone. The chart room also carries radar, both for navigation and uncovering deep-swimming schools of tuna.

Constructed with an emphasis on sturdiness and stability, one of the most unusual features of the Columbia is its upper deck construction of waterproof plywood. This type of deck, providing both unusual strength and lightness, also provides the essential tightness, so necessary when a boat is operating under tropical conditions. Here blistering heat dries the wood, cooks open seams, re-

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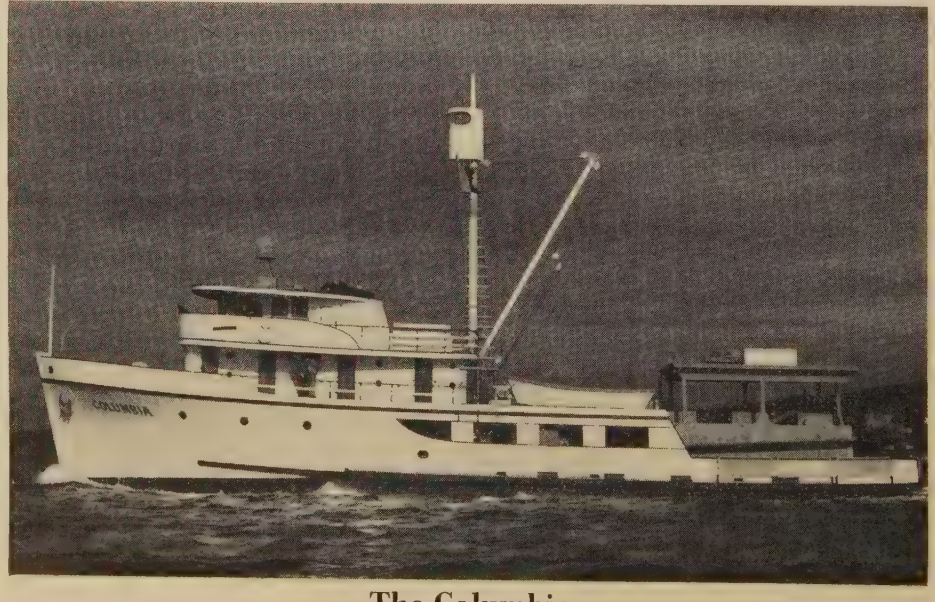

The Columbia

Photo-Electric Pilot

Model 52—Automatic Steering De-Luxe

CONSTANT adherence to more efficient design and operation of automatic steering of boats has resulted in the new model "52" Photo-Electric Pilot. The engineers and craftsmen of this pioneer company have produced a heavy duty electronic unit for automatically steering all types of work and fishing boats.

Blair Dickison, president of the Photo-Electric Pilot Corp. in Seattle says, "Our experience with both the Model '45' for small boats and the Model '55' for larger boats has resulted in many outstanding innovations for sturdy design and construction that will benefit the work boat industry. For instances, our new heavy-duty control cabinet will house all the electronic parts in specially designed waterproof metal jacket. This one factor alone assures boatmen that no storm or moisture will put the automatic Photo-Electric Pilot out of order."

MERCURY switches that can be easily changed when necessary are now a part of the Motor Contactor. Rugged metal clips hold these switches rigid to function properly, yet they allow the switches to be removed easily.

A bronze bushing will be made an integral part of the lower part of the binnacle yoke in order to provide better bearing service for the 1/8" balls on which the yoke is mounted and rotates. This eliminates friction in the binnacle and reduces the load on the drive cable approximately 50%.

A special feature worthy of note is that the direction of binnacle rotation can be changed by simply reversing the binnacle drive cable in the fittings going to the binnacle. In other words, if it is located on the original installation in say, the right-hand fitting, and the rotation of the binnacle is found to be incorrect, the fitting is simply unscrewed and the cable mounted in the left-hand side of the course changer gear box and the rotation is then correct.

The power unit now has a rugged cast gear case which is designed for heavy work and abuse under extreme conditions with efficient and continuous operation for all types of heavy-duty work boats.

A completely new, efficient planetary gear-type clutch assembly is now a part of the power unit, giving it a more compact design. It is precisioned for more accurate and dependable engagement and disengagement of the automatic steering by the Photo-Electric Pilot from hand operation. This type of clutch assembly parallels the overdrives on the late model automobiles.

AN oil seal will be installed on the motor between the bearing and the gear case to prevent leakage of oil into the motor. The four conductor leads from the motor will be brought out into the limit switch case which will be of water-tight construction underneath the motor at the opposite end of the output shaft on which the sprocket is mounted. Thus the brush end of the motor can be gasketed and kept completely water-tight.

In this model "51" Photo-Electric Pilot, the motor can be removed and replaced by simply disconnecting the four motor wiring leads from the terminal board in the limit switch case and removing the four motor mounting screws . . . all of this can be done in a few minutes by any mechanic who can use a screwdriver and a wrench.

Course changer relays or resistors will simply be plugged into four prong sockets installed on the chassis in the contactor cabinet. If a course changer is to be added to an existing model "52" Photo-Electric Pilot installation, either the relays or the resistors, depending on the voltage, are simply plugged into the sockets already wired into the cabinet.

A two conductor cable is run out of the control unit to the course changer motor and if it runs in the wrong direction, the two wires are reversed. The course changer is mounted to a bulkhead with two screws and the course changer drive cable runs from the course changer into the binnacle by simply removing the locking stud from the fitting opposite the follow-up fitting which goes to the power unit. Anyone will be able to install the course changer in a minimum of time without the necessity of changing gears or making any other changes in the Photo-Electric Pilot.

The Photo-Electric Pilot Corporation has been manufacturing electronic units for automatic steering of boats for 20 years or more and they now have distributing outlets from coast-to-coast and in many parts of the world. They manufacture three models of this pilot to fit every type of boat. Their volume of installations is increasing every year. One Photo-Electric Pilot owner in New Zealand writes that his pilot is equal to an extra man aboard, or if you like, in rough going, equal to two men.

This model "252" Photo-Electric Pilot was on display at the New York Boat Show in the Smith-Meeker Booth, No. 120—3rd floor, Grand Central Palace. The Photo-Electric Pilot is manufactured by Photo-Electric Pilot Corp., 3215 Western Avenue, Seattle.

EBB'N FLOW

(*Continued from page 6*)

Brownsville. J. E. Barr of Harlingen, Texas, has been appointed executive secretary.

APPOINTMENT

Hall:

Lieut. Charles L. Hall, of the Washington state patrol, has been obtained to act as supervisor of the Department of Fisheries patrol division. His appointment is effective immediately.

Born and educated in Seattle, Lieut. Hall has served since 1933 with the state patrol, and most recently was in charge of the Snohomish district.

As supervisor of the fisheries patrol, he will undertake its substantial reorganization, including establishment of a law enforcement training program for present and new personnel.

S. P. Phillips, who has served as acting supervisor for the past four months, will resume his position as assistant supervisor.

AWARDS

Power Dams:

Plans for appealing the Federal Power Commission award of permits to the City of Tacoma for construction of two power dams on the Cowlitz river have been decided upon by the Washington State Department of Fisheries and Department of Game.

Funds have been allocated to appeal the decision directly to the commission this month, and if necessary, to carry the issue to the U. S. Supreme Court.

A team of three attorneys, headed by William E. Hicks, Seattle, and including Harold Pebbles, Olympia, and Lee Olwell, Seattle, will be employed as legal counsel. All three men have participated in previous hearings before the commission in the fight to block the Cowlitz development because of its potential damage to fish life.

The two departments also are gravely concerned about the future effect of the F.P.C. decision on the legal right of the State of Washington to manage and protect its own natural resources. The decision would void a state law passed in 1949 and reaffirmed at the 1951 state legislature setting up a lower Columbia river fish sanctuary in which dams higher than 25 feet are prohibited. The two proposed Tacoma dams would be 325 feet and 185 feet high respectively.

Testimony presented at the F.P.C. hearing by the two departments not only demonstrated the importance of the Cowlitz river as a fish producer but also established the inadequacy of experimental fish protective facilities offered by the City of Tacoma. The F.P.C., in making its award last month, recognized this inadequacy by requiring the City of Tacoma to perfect its fish passage facilities before commencing construction. The devices would provide for escapement of adult fish over the two structures and the safe movement of small fish over and through the dams on their downstream migration.

The state's testimony also showed that the Cowlitz river is the largest river system included within the boundaries of the lower Columbia river fisheries development program. This program was established by agreement among the states of Oregon, Washington and Idaho and the U. S. Fish and Wildlife Service to rehabilitate lower Columbia river tributaries as compensation for the loss of salmon runs on the Columbia river watershed caused by federal hydroelectric and reclamation projects. The work, under way for four years, is being financed by the federal government. One hatchery, located on the Toutle river, a Cowlitz river teributary, already is in partial operation under this program. However, work on a second station at Packwood on the main Cowlitz, scheduled to cost $515,000, has been halted because of the F.P.C. ruling. The Cowlitz hatchery was scheduled to begin operation in the spring of 1952.

The two departments feel that the dual issue of fisheries conservation and local rather than federal resource management within the state, is so serious that it must not go unchallenged. For this reason, every possible step will be taken to retain sovereignty over the Cowlitz river for the State of Washington.

UNUSUAL VESSEL

Monte Carlo:

An unusual fishing vessel was recently launched at the South Bristol, Maine yards of the Bristol Yacht Company. Christened the *Monte Carlo*, this dual-purpose combination trawler and dragger was built by Harvey Gammage for Captain Edwin B. Athearn, from the design of M. Rosenblatt & Son, of New York, in collaboration with Francis Minot, Maritime Consultant, and is now scallop dragging out of Portland, Maine.

Fishing vessel operators, owners and builders will be interested in the many outstanding features of this vessel which put her in a distinct class and well may influence future conceptions of fishing craft design. The modern and complete appointments will be a revelation to fishermen, and its functional equipment compares favorably with ships of much greater tonnage. The vessel is 73-ft. in overall length, with a waterline length of 69-ft. 2-in., and a beam at the waterline of 19-ft. 11-in. The aft draft is 9-ft. 2-in. on the design waterline. Her full load displacement is 122.8 long tons, representing 2.4 tons per inch depression at the design waterline. The fish hold volume is 1,578 cu. ft. to accommodate a 60,000 lb. cargo of iced fish. She can carry 2,520 gallons of fuel oil and 500 gallons of water. Service speed, fully loaded is approximately 9 knots.

The *Monte Carlo* is powered by a B & W Alpha, a 3-cylinder, two-stroke

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cycle, valveless diesel engine of 9″ bore and 15¾″ stroke, designed and built by Burmeister & Wain in Denmark, to meet the requirements of ruggedness, simplicity and reliability.

The real secret of the *Monte Carlo's* power, maneuverability and economy is the reversible pitch, three bladed propeller which becomes an integral part of the engine through an hydraulically-operated friction clutch and reverse mechanism. The control rod, placed in the hollow propeller shaft is connected to an operating piston directly ahead of the thrust bearing. By means of pilot valves and rods the oil under pressure supplied by a gear pump is carried to one side or the other of the piston. The movement of the piston moves the pull rod fore or aft and, through a rotary, keyed segment, changes the pitch of the propeller as desired. The pilot valve operation is controlled from the pilot house A slight movement of the controls places the propeller blades in any position from full ahead, through neutral, to full astern very quickly, even while the engine is under heavy load.

Constant speed engine operation is a valuable economy factor giving, for this engine, a specific fuel consumption of 0.40 lb/bhp-hr. equivalent to less than 10 gal. per hour at full load. The engine is classed by the Bureau Veritas and the American Bureau of Shipping. Other equipment which makes the *Monte Carlo* outstanding for its completeness in modern convenience, reliability and functional operation are its spherical compass, dual unit Navy-type Loran, direction finder with outside loop, 100-watt ship-to-shore, 5-channel radio-telephone, 100 fathom fathometer and 250 fathom recording fathometer.

The trial runs and initial fishing trips have completely vindicated the courage and judgment of the owner, the designers and the builders of this distinctly new fishing vessel whose name is highly imaginative but by no means enigmatic.

GREEKS

(Continued from page 7)

Milo Moore waded into the fishing situation in Greece with his sleeves rolled up, determined to accomplish the job. It took a year of slow grind in which the predominant accomplishment was winning daily arguments over the matter of loans, and then successfully inducing the fishmen to take advantage of newer and more modern methods, equipment and facilities. The end was in sight at the end of a year though.

Production was more than doubled and a reduction of fifty percent in the cost of fish at the markets was assured. The money had been loaned. Some 2,000 new fishing craft had been constructed and put into operation. Some 2,000 small loans were on the books for items such as nets, hooks, twine and small boats such as skiffs.

The Greeks were back in the fishing business, and generally speaking, most individual fishermen were in somewhat better shape than their counterpart, the working man ashore. Once confidence in the matter of loans was instilled in the fisherman, business moved forward at a more rapid pace. Obstacles remained yet, however, in the matter of boat styles and engines. It is difficult to say which of these two factors predominated in obstructing a more rapid rehabilitation program. On both factors the Greek fishermen were more or less adamant.

AND it was only after several boats had been constructed and demonstrations of the advantages of the fore-

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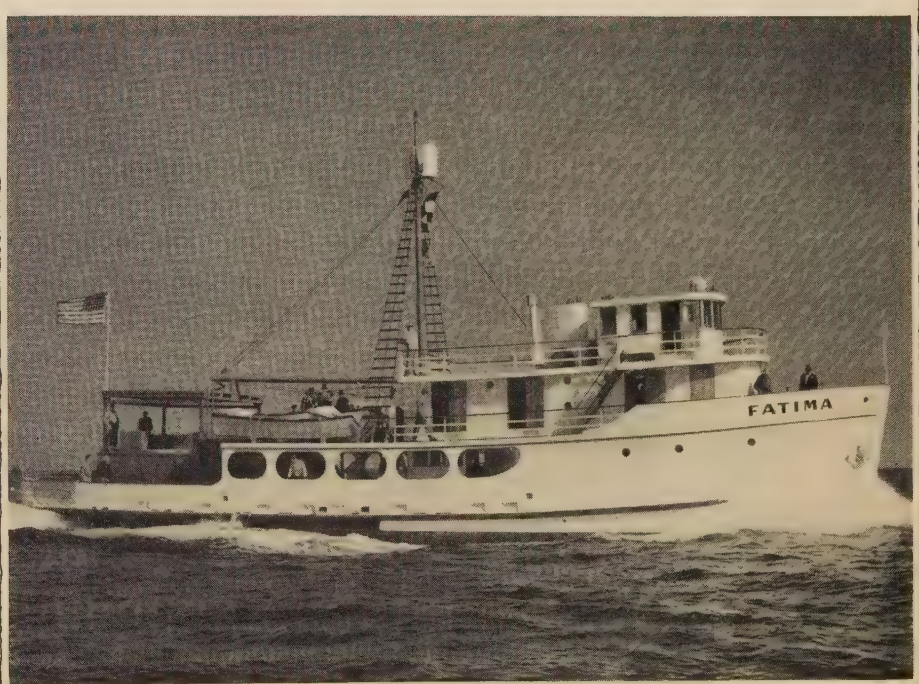

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ward pilot house, and the long ranges of fishing boats by means of engines was proven that a very few, at first, decided to take a crack at the new innovations.

The fishermen watched their neighbors, and slowly as one after the other took the step into better and more improved equipment, others followed his example. In the matter of boat construction, some fishermen insisted upon two pilot houses, one forward and one aft, an obviously ridiculous situation. Soon however, the stern pilot houses disappeared, and the fishermen became convinced of the dependability of the engines.

It was not only the fishing equipment, boats, engines, etc. that were in need to improve the Greek fishing industry. Refrigeration, packing and storage facilities ashore were needed also. While some of the private enterprise interests had seen this need earlier, and indeed the Greek government was in the process of making a study of the home fishing situation, the finances were lacking to complete these projects—some of them standing in partially constructed states.

The completion of one ice plant required the loan of only $7000 to complete it and this village received its first ice.

Milo Moore left Greece minus the three and one-half million dollars, but he had accomplished an almost complete rehabilitation of that country's fishing industry, under the administration of the Marshall Plan, and he brought back with him a medal presented by the Greek Hydrobiological Institute in gratitude for this work.

SEATTLE

(*Continued from page 10*)

the "Acres of Clams" in a prominent place is the sign, "No more than three cups of our clam nectar to a man without written permission from his wife. No exceptions!"

The cold storage acquarium stands close by where numerous species of odd and unusual fish are displayed frozen stiff upon the walls. Temperature inside ranges somewhere near the zero mark, admittedly too cold, unless you are equipped with heavy clothing. Perhaps it is, after all, the port of Seattle that is most important.

Starting with Indian canoes, from the date of the first white settlers to the rousing trade produced today by huge oceanliners plying the seven seas, Seattle has progressed steadily in its 100 year existence to become the champion West Coast port it is today, "Gateway to Alaska and the Orient."

MYSTERY

(*Continued from page 11*)

able high protein foods and can now be served by the average housewife at around 15c a portion.

"Too many people think of tuna as something that goes only in salads and sandwiches. We've got to let more people know that it is even better in hot dishes; that it is a great staple food, full of minerals, vitamins, proteins and iodine.

"The next cooperative move of our industry should most certainly lead to more and better advertising of our product. Advertising is going to be the big factor in solving the major problem of our industry." Los Angeles papers, radio and TV stations came through with worthwhile publicity stressing the superiority of American packed tuna over foreign imports.

COLUMBIA

(*Continued from page 14*)

sulting in rains and boarding seas opening leaks in the deck. As Capt. Perry puts it, "With this waterproof plywood construction I'm sure we have solved the problem.

Another feature for handling of fish on the Columbia is a saltwater line T at the after end of the bait tank, with the water discharging from either arm of the T into the hinged metal flumes supported by the bait tanks.

Once fish have filled the deck, streams of water are turned into the flumes, and the fish are sluiced along and delivered to desired cargo wells with the use of portable flumes.

The Columbia also carries a 16' Kettenberg tender, powered by Chrysler.

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Equator

One of several great new clippers to join San Diego tuna fleet recently.

NICARAGUA

(Continued from page 13)

THE really extraordinary small lakes are found on the Pacific side of the country, in the neighborhood of the great lakes. The most important of these mysterious lagoons are Tiscapa, Nejapa, and Asososca, just behind the city of Managua; Jiloa, further north; and Apoyo and Nindiri between the cities of Granada and Masaya. Almost all are of volcanic origin, the result of tremendous quakes that sank the land, or occupying the craters of extinct volcanoes. Measuring from two to four miles around, closed in by almost perpendicular cliffs of solid black rock, these ponds are accessible only on one side, by paths used from ancient times by the Indians, who made them sacred places.

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Around Nejapa Lagoon they still speak of imaginary perils, of whirlpools that form in it and suck under anyone who enters the water, of a temple excavated in the rocks, flush with the water, where the natives used to make their sacrifices to the divinities who ruled over fire and the mountain streams. Not a single fish lives in its alkaline, almost entombed waters.

Of the lagoon of Nindiri, near Masaya, the same Oviedo related, "It is so deep they have not discovered its bottom, nor are there any fish in it of any kind, except some as thin as a little needle, which, since they are so small, can best be eaten in omelets. I asked the Cacique why they did not stock the lake with some good fish, and he replied they had tried this, so that the fish would multiply and they would have food, and that the fish soon died and stank, and they rose to the surface of the water, and even polluted it, and therefore, as something they had thoroughly tried, they do not continue with it."

FINALLY, the old chronicler referred to two other lakes: "Going from the town they call Managua, at a distance of one shot of a crossbow, there is another very pretty and square lake that looks like a reservoir and is partly surrounded by high hills and split rock, in a very pretty setting, and has many good fish. . . . There is another in the province, which is called Diria and is bigger than the one called Nindiri: this one has water as salty as the sea itself and has many fish and very good ones, which are better and tastier than all the other fishes of all the other fresh-water lakes we have mentioned."

How did thees lakes, so hermetically sealed off that they have attracted the attention of explorers for more than four hundred years, become populated with fish? "*Quien sabe!*" Squier answers, in Spanish.

In the great lakes, with the gradual change of natural conditions over the

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Pan-American Fisherman

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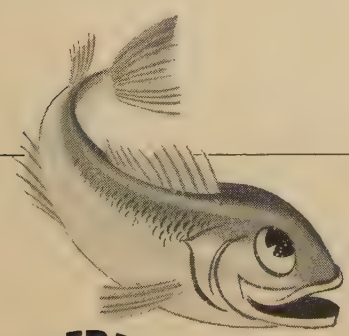
centuries, the marine fish not only were acclimated to fresh water but developed extraordinarily in considerable variety and many sizes. Julius Froebel found six species not previously described in Lake Nicaragua, among them the *mojarra* and *guapote*, and also encountered the shark, the swordfish and the sawfish, although their structure was intended for life in salt water. The German author reported as follows: "At one place the lake was so full of fish that a boy in a single throw of his net caught enough for the dinner of the whole family. The fishes belonged to the two species called Mojarra and Guapote, which are always to be bought in the market of Granada. I sent these two and four other species of fishes from the Lake of Nicaragua to my friend, Professor Agassiz, and they all proved to be hitherto undescribed, representing six new species and two new genera."

(*Continued on next page*)



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The *mojarra* and the *guapote* belong to the Cichlid family, which is represented in the United States by the familiar fresh-water sunfish. The *mojarra contara* (*Cichlasoma citrinellum*) is abundant in the great lakes and in Lake Tiscapa. It is the most variable of all the species in these lakes, but the varieties do not show constant tangible characteristics to permit classification into sub-species.

The *guapotes* are in the same branch of the *Cichlasoma* genus as the *mojarra*, and include several species. One, the dark, mottled *managuense* species, is fiund abundantly not only in Lake Nicaragua but also in the muddy, warm waters (83°) of Tisma Pond. Even there its flesh is firm, flaky, and tasty.

SETH EUGENE MEEK of the Field Columbian Museum of Chicago, in describing these species, said of *C. managuense*: "The vitality of these fishes is remarkable. Those in the market are often found to be living after they have been taken from the water for some time. I purchased two of these fishes in the market at Granada one morning, carried them to the hotel, and left them while eating my breakfast and for half an hour afterwards. I then put them in water, and in a short time they were as lively as ever. This species is certainly worthy of the attention of fish culturists. It grows to a length of about five hundred millimeters. In shape it resembles our black bass. It is, however, a thicker fish."

Meek's *Synopsis of the Fishes of the Great Lakes of Nicaragua*, based on a collection he made on the spot in 1906, was published the following year by the Field Museum, and the Nicaraguan Government later had a Spanish translation made of it. With its keys and descriptions, it is easy to identify all the species in these lakes.

Other excellent fresh-water fish are the *robalo* (*Pomadasis grandis*) and *guabina* (*Philyprus dormitor*). While

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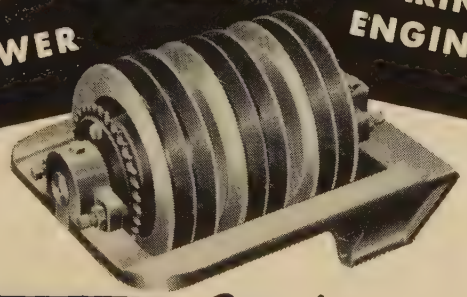

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the latter are to be found in the Granada market, brought from the islands in the lake, neither species is very common. Both are of an olive tone, but on the *robalo* each scale has a lighter-colored center, forming vague lines along the side of the fish.

Several species known as *bagres* of the genus *Rhamdia* are also plentiful, and there is a close relative of *Gambusia*, the little fish widely used for mosquito control, labeled *Paragambusia nicaraguensis*, running about an inch long.

Four varieties in Lake Nicaragua and its associated rivers go by the common name of *sabalo*. One, *Brycon dentex*, silvery below and dark blue above, with plain fins, grows to a length of a foot or more, is often sold in a dried form, and is considered inferior only to the *guapote* and *robalo*. Another, the large-headed *Dorosoma chavesi*, is named for Dioclesiano Chaves, a former director of the National Museum of Nicaragua. A slender variety (*Bramocharax elongatus*) is generally called *sabalito*. Finally, there is the *sabalo real* (*Tarpon atlanticus*).

IN Nicaragua the latter turned into creatures larger than a man and said to weigh far more than the world rod-and-reel catch record of 247 pounds for

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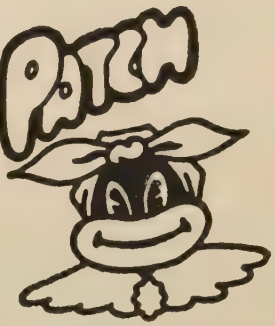

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the species. They come up to show off their brilliant silvery color in the sun and can leap twelve or fifteen feet in the air. In pleasure trips to the Florida beaches, they head for the San Juan river outlet at speeds up to sixty-five miles an hour. They are covered with gelatinous scales, and when they force their way into shallow places to eat the vegetation, only their tails are visible.

Fishing for this *sabalo* real was what made William E. Simmons most enthusiastic on his expedition to Nicaragua. "But the game fish par excellence of the fresh water is the 'savalo-real,'" or tarpon, which fairly swarms in the river and lake. I am inclined to think that the San Juan River and Lake Nicaragua are the principal breeding places of this fish, and that it is a mere migratory visitant to our coast. Wherever there is a shoal place in the river it is to be seen breaking by the hundreds, and at the Toro Rapids, above El Castillo, they are so numerous that they frequently jump into the boats ascending or descending. As many as five, measuring from four to six feet in length, have been known to jump into a boat on one trip down the rapids, which are only fifteen miles long. They are apt to bite the occupants of the boat or injure them by floundering about, and so a boatman usually stands ready, armed with a machete, to cut their heads off as soon as they strike the deck. . . . I feel no hesitation in saying that great sport awaits any angler who will go there prepared for it." Actually, little is known as to the breeding grounds of this fish.

The *pez sierra*, or sawfish, which some ancient writers erroneously referred to as a swordfish, reaches a weight of nearly half a ton and a length of ten feet or more in Lake Nicaragua. *Prisis pectinatus* has twenty-four to thirty-two teeth on the saw, *Pristis microdon* only fifteen to twenty-two. Both species seem to exist in Nicaragua, going considerable distances up the rivers.

OVIEDO tells this story: "In the year 1529 I found on the beach of this lagoon, in the province of Nicaragua, a dead fish that must have been tossed ashore by the water itself; it was a kind that no man had ever seen, even dead, except in the ocean, and they call it *pexe viguela*, for the sort of snout it has at the end of the upper jaw is a

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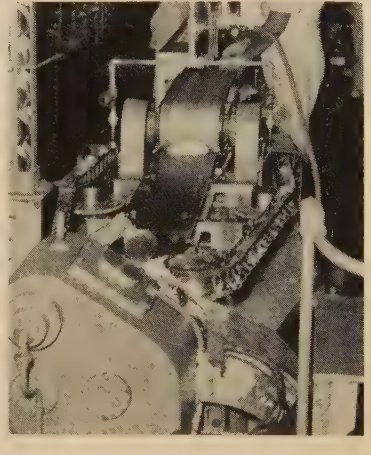
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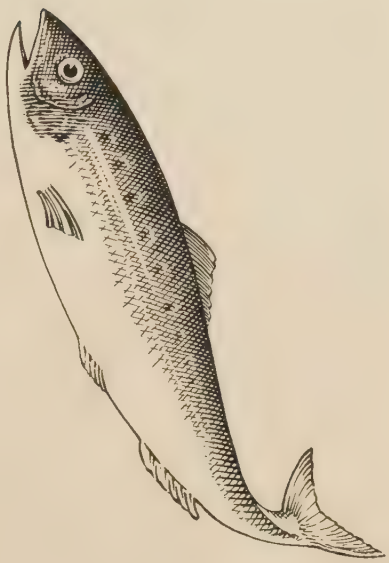
ferocious sword full of sharp teeth spaced along both edges. And they are tremendous fish, and I have seen them so big that a pair of oxen pulling a cart had a full load with one fish. . . . Although (the one I found) was more than twelve feet long, it was a small one, for the sword was small, no bigger than a palm and three fingers, and no wider at the widest part or at its base than two fingers."

The sharks of the lake, related to types found in the Pacific Ocean, go by the scientific name of *Carcharhinus* (or *Eulamia*) *nicaraguensis*, the first shark species definitely established as living in fresh water. Of a dark grey color when small, it becomes browner as it grows. It attains a length of six to ten feet; has a broad, depressed head and robust body; and is so fierce that it is known locally as *tigrone* (tiger fish).

Where the San Juan River empties into the Caribbean, and along the bar of the Colorado, one of the San Juan outlets, the sharks are even more abundant and fierce. Ocean species spawn there and offer an unusual sight: when the ocean wave hits the river's stream, the sharks are seen flapping desperately on the sandy bottom. The female, which is famed for being even more ferocious than the male, is called *tintorera* because it is said to enjoy seeing itself red with blood.



THIS same point is the entrance for the small boats that ply between the Atlantic Coast and the interior ports on the lake. Sea sharks follow the boats up the river, swimming on both sides of the vessel in the hope that it may capsize or sink, until they are stopped by the Machuca Rapids. Then the lake sharks take over the watch for the rest of the trip.

The Nicaraguan shark is silent. For this reason he loves the backwaters along the shore of the San Juan. With his first dorsal fin sticking out and mingling with the floating vegetation, he hunts at surface level, selecting the most nutritious fish and at the same time avoiding the blows of waves. Nothing disturbs

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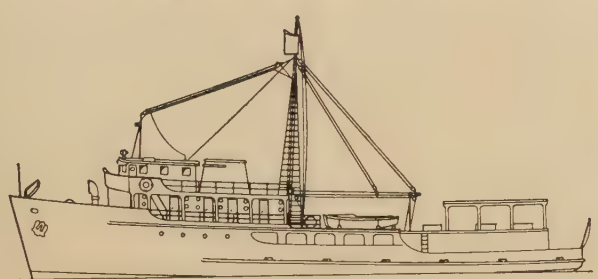

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him so much as the sound of chopping trees and of the rolling trunks splashing into the stream. The farmer who must get over the river with his horse crosses himself first. Then he ties the horse to the end of the canoe and starts across, beating the sides of the canoe with an oar so that it resounds like a trombone under the water. He generally accompanies this with violet cursing, trying to intimidate the sharks until the horse arrives safe and sound on the other shore.

In the early morning hours of March, April, and May, the fishing is excellent. The preferred spots are at the mouth of the river and in certain regions that are among the most humid in America. There the sun never penetrates the vegetation along the shore. It rains every days, and the annual rainfall totals 260 inches. Near Bluefields, the Inter-American Geodetic Survey maintains a station to gather data on the tides.

The fisherman can hook a seven-foot shark here every five minutes with just six ounces of bait. But between the time of the bite and the landing of the fish a battle rages for hours, and the boat may

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Sam Crivello, (center) new President American Tunaboat Association, a crew aboard Sun Europa.

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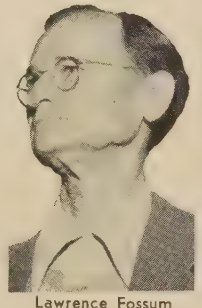

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be pulled along by the shark for miles, with the anchor kept up so that the line will not break. When the harpoon method is used, the custom is to tie the end of the line to a buoy, which is left to float freely until the fish is tired and weakeend by loss of blood. In Nacaragua the sharks are killed more to prevent them from doing damage than for commercial purposes. The city council of Granada, the principal port on the lake, recently decreed a bounty on sharks' heads, as on fugitive criminals. The fish had become so voracious that in one day the same shark attacked three bathers on the beach.

Few people in Nicaragua take care to use the necessary equipment and methods to catch the shark without damaging its skin. Professional fishermen, however, use the spines to make needles. They make shoes from the skins, eat the meat, and prepare a special soup by cooking the nerves of the fins in coconut milk. All the waste parts are generally sold to small soap factories. An old custom was to leave the livers in the sun for several days. When spoiltd, they were fried, yielding a small amount of oil, which, in its impure and fetid condition, was used to lubricate wagon wheels. People began to notice that the dogs who opened the bellies of freshly caught sharks with their front paws and ate the livers turned from weak and sickly creatures into healthy, fat ones. This started a demand for the livers. Nowadays they are steamed, or placed in an iron pot or drum over an open fire, in about six inches of water so that the oil will not come out dark or become bitter. Chinese merchants used to export sharks' fins, but post-war synthetics and the vitamins that have taken the place of liver oils ended the small and primitive shark-fishing industry in Nicaragua.

NOW the Nicaraguan shark, the terror of all the other fish of this region of fresh, warm lakes, and of the inhabitants of their shores, need only fear the occasional invasion of its kingdom by someone like Luis Marden, of the *National Georgaphic Magazine;* a fish called barracuda that comes up from the Atlantic to persecute it, even though smaller than the shark; or the *Moskito,* a part-Negro Indian, from the same coast, a remarkable swimmer praised by all the pirates. Naked, with only a sharp knife between his teeth, he passes unharmed among the fins of the beasts. Because of this, they say in Nicaragua that the shark only likes white meat.

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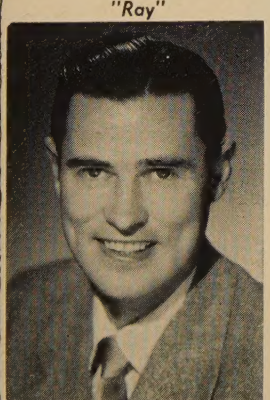
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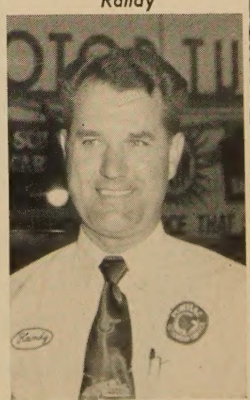
RANDY OVERLEASE
Service Manager

BOAT SALES

BOAT BROKERS: List your boat sales each month on this page. No charge to you—listing is a service to our readers.

The following are boat sales reported by brokers in the Southern California area.

Anchorage, Ltd., 5104 Harbor Drive, San Diego, Cal. 36' Twin-speed sport boat—"Palama aKi II." Purchased by Dr. Charles Brass of Solano Beach from Frank Donahoe, of Santa Monica, Calif.

28' sport boat "Calvalier." Purchased by Bernard Johnston of El Centro, from Dave Delano and Don Seider of San Diego, Calif.

24' boat—"Nancy Ellen." Purchased by William Whitson, of San Diego, from Paul Burton, also of San Diego, Calif.

24' cabin cruiser "Lo Bo." Purchased by Henry Moore of National City, Calif., from R. A. Fechter, of San Diego, Calif.

34' Elco cruiser. Purchased by Don Dunhany, of National City, Calif., from O. C. Parsons, also of National City.

32' Marlin trawler "Rebel." Purchased by A. D. Clark, La Mesa, Calif., from Herbert Panchot, of Point Loma, Calif.

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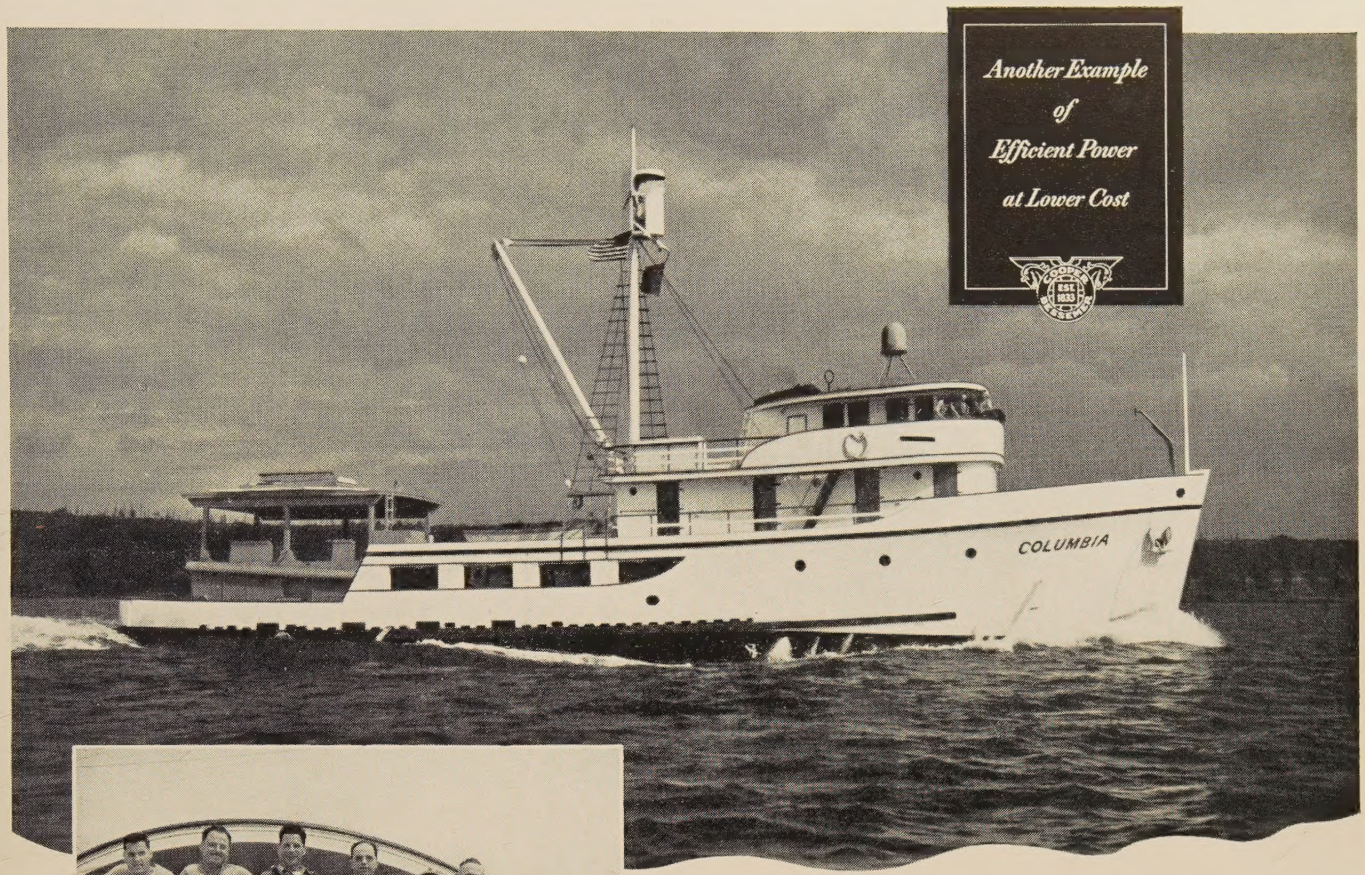

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Left to right: Jim Petrich of Puget Sound Boat Building Co.; Al Brum; Art Sousa, Engineer; Frank Perry, Managing Owner; John Petrich, also of Puget Sound Boat Building Co.; and Frank Valin, skipper.

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